



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

Site: _____
Break: 34
Date: _____

Date: APR 14 1988

Subject: Review of the Draft Work Plan for the Remedial Investigation (RI) / Feasibility Study (FS) at the Medley Farm Site, Gaffney, SC

From: Gail D. Mitchell, Chief *Gail Mitchell*
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To: Jon Bornholm, Project Manager
NC/SC Site Management Unit, Superfund Branch



The subject work plan has been reviewed as per your request of March 31, 1988. Previous field investigations as reported in Section 2.3 of the Work Plan documented ground-water degradation primarily by volatile organic compounds (VOCs) in an on-site monitor well and in nearby private residential wells. With this in mind, the subject work plan was reviewed to determine if the site characterization and field work proposed will be adequate to complete the RI/FS process.

We commend the consultants for the following excellent proposals included in Section 3.0 of the Work Plan:

1. the phased approach to be implemented in the RI field investigations,
2. sieve analyses on aquifer samples to determine screen slot size and filter pack material grades for surficial (saprolite) monitor wells,
3. a pump test to evaluate the interconnectivity of the surficial and bedrock aquifers, and
4. bi-monthly or more frequent water-level measurements from all monitor wells to determine local ground-water flow patterns.

The following comments and recommendations are offered to improve the quality of the Work Plan and to assist in fulfillment of the RI/FS.

Comments and Recommendations on the Draft Work Plan

1. Section 2.3 (pages 9 & 10) - A map should be provided in the Work Plan showing the locations of the private wells sampled by the State of South Carolina (SCDHEC).



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2. Section 3.0 (page 16) - The phased approach proposed for the RI field investigations is excellent. However, the proposed ground-water schedule calls for the sampling of only one monitor well pair in Phase I. The installation of additional monitor wells, if required, and the sampling of all monitor wells is proposed for Phase II. We recommend that all four proposed monitor well pairs be sampled in Phase I. Previous sampling and analysis has documented on-site ground-water contamination as well as possible off-site migration. Phase I sampling and analysis will provide information on the current nature of the on-site ground-water quality. These results can then be used to determine the number and locations of additional monitor wells, if required, for Phase II in order that the nature and extent of ground-water contamination can be defined. As a result, the requirements of 40 CFR Section 300.68(e)(2) will be met in a timely manner.

3. Section 3.6.3 (page 26) - Will monitor well pair MW-1 provide background ground-water quality data? This well pair is said to be "upgradient from former disposal and storage areas" as well as "between the former disposal and storage area and the Sprouse domestic water well." The Sprouse well was effected by VOC contamination believed to be migrating from the site. Therefore, it is questionable as to whether MW-1 will provide background ground-water quality data. Another monitor well pair may be required in either Phase I or Phase II to acquire such data.

4. Section 3.6.5 (page 28) - A composited soil sample from MW-2 is proposed for a complete Hazardous Substance List (HSL) analysis. The Work Plan states that "one soil sample will be composited from split spoon samples collected at depths of 5, 15, and 25 feet." We recommend that organic vapor screening as discussed on pages 29 and 30 of the Work Plan be attempted on split spoon samples from MW-2 to select those intervals to be composited for the full HSL analysis.

5. Section 3.10.3 (page 39) - Monitor well pair MW-2 is proposed within the southeast boundary of the suspected disposal area. As such, contaminated soils may be encountered in drilling this well. Therefore, we recommend that cuttings from this well pair are handled in a more cautious manner than that proposed. The cuttings should be drummed and stored onsite. After review of the results of the HSL analysis on the composite soil sample from MW-2, a decision can be made as to the proper disposal options available for the cuttings.

6. Section 3.12 (page 40) - Contaminant transport modeling is proposed "as an attempt to define the potential impacts of residual contamination and to predict future dispersion and migration patterns." In addition, "special consideration will be given to the potential of Jones Creek, the Big Blue Branch, and Thicketty Creek to act as flow interceptors for the surficial and bedrock aquifers." However, the RI field investigations proposed in the Work Plan will not provide the data base necessary to perform such a modeling exercise. Additional information such as surface-water elevations, the existence of bedrock outcrops in streambeds, the elevations of major fracture zones in on-site monitor wells, design data on local wells, etc. will need to be acquired to determine if the streams act as permanent ground-water flow divides for both the surficial and bedrock aquifers in order to perform the proposed contaminant transport modeling.

Hopefully, these comments and recommendations will be helpful in finalizing the Work Plan for the RI/FS at the Medley Farm Site. We would welcome the opportunity to review future reports documenting the field investigation findings. If you should have any questions, please contact Rich Muza at x3866.